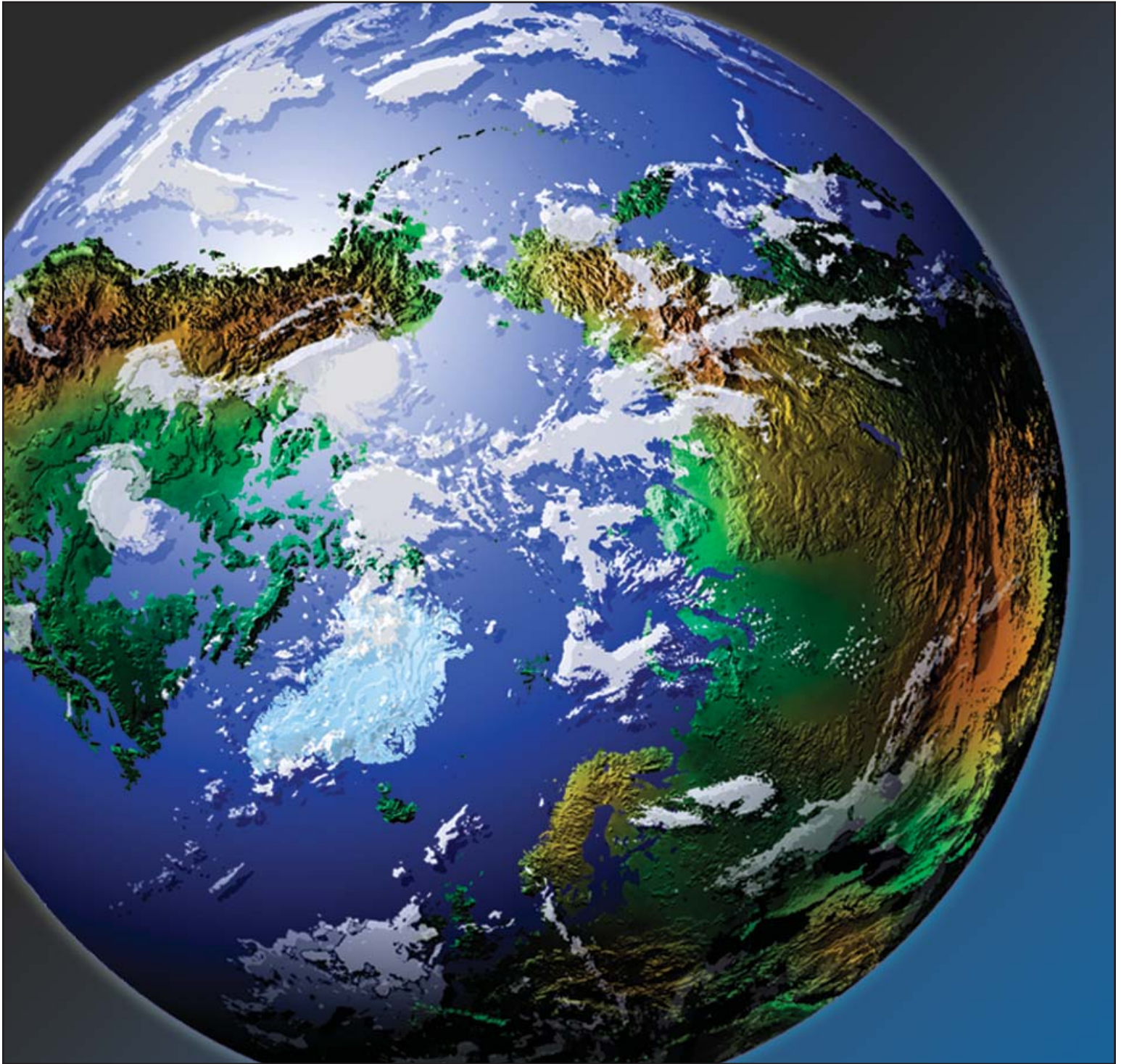




# National Nuclear Security Administration Office of Defense Nuclear Nonproliferation



*Detect, Secure, and Dispose of  
Dangerous Nuclear Material*

### **Securing Civilian Nuclear and Radiological Materials Worldwide**

- Converted 51 reactors in 29 countries from HEU (high-enriched uranium) to low-enriched uranium (LEU) (an additional 4 shutdown).
- Returned 590kg of Russian origin HEU; 1,140kg of U.S. HEU; and over 140kg of other HEU material.
- Secured over 600 vulnerable radiological sites overseas (over 9 million curies worth); recovered over 16,000 radiological sources domestically (over 175,000 curies).

### **Securing Russian Nuclear Weapons Material**

- Secured 85% of Russian nuclear weapons sites of concern; Bratislava work to be completed in 2008.
- A new bilateral agreement identifies the requirements for Rosatom to sustain security upgrades installed over the past 14 years.

### **Detecting and Deterring Illicit International Nuclear Transfers**

- In 2006, U.S. and Russia agreed to equip all of Russia's border crossings with radiation detection devices by 2011 (6 years ahead of schedule), building on the 117 crossings already equipped.
- Megaports radiation detection equipment is operational in 12 countries with work underway in 17 other locations.
- Last year, reviewed over 7,000 export licenses/requests for proliferation risk, recommending denial of 227.

### **Strengthening and Expanding International Nonproliferation Efforts**

- Launched new initiative to strengthen nuclear safeguards applied by the IAEA; strengthened the Nuclear Suppliers Group export control guidelines and control lists.
- Overseeing disablement of North Korean facilities and working to verify denuclearization.
- Worked to dismantle Libya's nuclear WMD program.
- Engaged thousands of former weapons scientists and engineers, facilitating the creation of thousands of jobs in the former Soviet Union, Libya, and Iraq.
- Trained over 5,600 domestic and nearly 8,000 international export control officials on strategic trade controls and WMD identification since 9/11; provided WMD awareness training to over 1,300 U.S. customs and border inspectors.
- Trained over 300 foreign officials annually on physical protect nuclear materials and facilities and trained over 1,000 foreign facility operators on nuclear material control and accounting procedures.

### **Eliminating Weapons-Usable Material**

- Monitored the downblending of over 320 MT of former Soviet weapons-origin HEU for use in U.S. nuclear power plants, providing 10% of U.S. electricity.
- Downblended over 92 MT (approximately 11,500 nuclear weapons) of surplus U.S. HEU into LEU for use as nuclear reactor fuel, with an additional 13 MT packaged and shipped for downblending (total of nearly 105 MT); converted almost 10 MT of Russian non-weapons excess HEU into LEU.
- Initiated work to downblend an additional 17.4 MT of HEU for the Reliable Fuel Supply initiative.
- Working to dispose of at least 68 MT of U.S. and Russian weapons-grade plutonium; technically and financially credible plan agreed with Russia for disposal.
- Began construction of the Mixed Oxide (MOX) Fuel Fabrication Facility, which will fabricate 34 MT of surplus U.S. weapon-grade plutonium into MOX fuel for commercial reactors; an additional 9 MT of recently declared surplus U.S. plutonium is available for fabrication into MOX fuel.
- Reduced weapons-grade plutonium production by 50% at the two remaining Seversk reactors and reached agreement with Russia for reactor shut-down by June 2008, six months early; plan to close Zheleznogorsk reactor by 2009, a year ahead of schedule, thereby eliminating a combined total of 1.2 MT of plutonium annually and permanently shutting-down the last remaining plutonium production reactors in Russia.

### **Research and Development**

- Developed the first-ever detection technique to measure uranium-235, using a novel, tunable X-ray beam--thus helping determine the weapons-suitability of nuclear material.
- Demonstrated state-of-the-art nuclear safeguard technology to determine remotely plutonium growth in a nuclear reactor.
- Delivered new ground and space based systems to better detect underground and atmospheric nuclear detonations.
- Transferred 40 advanced safeguards technologies to foreign partners to strengthen IAEA safeguards; initiated 85 ongoing collaborative nuclear safeguards research and development projects in 15 countries.



- Afghanistan  
Albania  
Algeria  
Argentina  
Armenia  
Australia  
Austria  
Azerbaijan  
Bahamas  
Bangladesh  
Belarus  
Belgium  
Bolivia  
Bosnia  
Brazil  
Bulgaria  
Cambodia  
Canada  
Chile  
China  
Colombia  
Rep. of Congo  
Costa Rica  
Croatia  
Cyprus  
Czech Rep.  
Denmark  
Dominican Rep.  
Ecuador  
Egypt  
El Salvador  
Estonia  
Ethiopia  
Finland  
France  
Georgia  
Germany  
Ghana  
Greece  
Guatemala  
Haiti  
Honduras  
Hungary  
Iceland  
India  
Indonesia  
Iraq  
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Israel  
Italy  
Ivory Coast  
Japan  
Jordan  
Kazakhstan



# DEFENSE NUCLEAR NONPROLIFERATION GLOBAL PROGRAMS



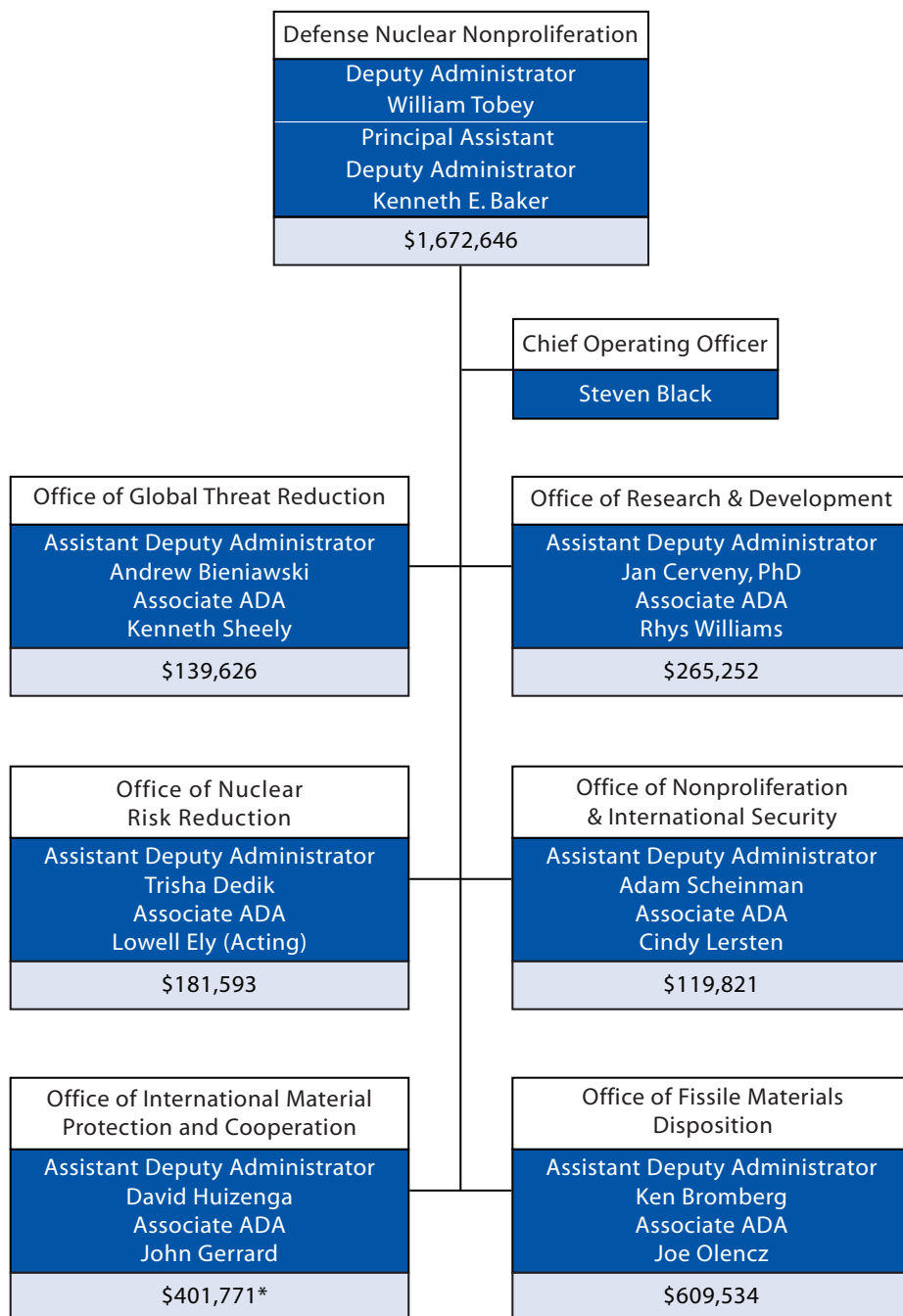
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Morocco  
Netherlands  
New Zealand  
Nicaragua  
Nigeria  
North Korea  
Norway  
Oman  
Pakistan  
Panama  
Peru  
Philippines  
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Singapore  
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South Africa  
South Korea  
Spain  
Sri Lanka  
Sudan  
Sweden  
Switzerland  
Syria  
Tajikistan  
Tanzania  
Thailand  
Turkey  
Turkmenistan  
Uganda  
Ukraine  
UAE(Dubai)  
United Kingdom  
United States  
Uruguay  
Uzbekistan  
Venezuela  
Vietnam  
Yemen

Plutonium Producing Reactor Shutdown (1)	Convert HEU Fueled Research Reactors (42)
International Emergency Management (25)	Remove/Protect Nuclear Materials (57)
Global Initiatives for Proliferation Prevention (7)	Remove/Protect Radiological Materials (70)
Confidence Building Measures and Engagement (10)	Second Line of Defense (20)
Warhead Dismantlement and Transparency (3)	Megaports (23)
Highly Enriched Uranium Purchase Agreement (1)	Civilian Site Security (8)
International Nuclear Safeguards and Engagement Program (17)	Russian Ministry of Defense Site Security (1)
International Nonproliferation Export Control Program (46)	Rosatom Nuclear Materials Security (1)
Physical Protection (20)	Plutonium Disposition (2)
Nonproliferation Noncompliance Verification (7)	

(#)Represents number of countries

## Scope of Commitment

- \$1.7 billion budget (FY08 request doubles 2001 appropriation).
- Engaging over 100 countries and the International Atomic Energy Agency (IAEA), through 19 programmatic activities.
- \$45 million in international contributions and pledges from 7 countries.
- 3 Service to America Award winners.



Budget figures in the \$1,000s - FY08 request

\* Includes FY 2008 Supplement Request

## Contact Information



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